

REMARKS/ARGUMENTS

Claims 1, 2, 5, 6, and 8-33 are pending in this application. Claims 1, 2, 5, 6, 26, and 27 are amended by the foregoing amendments. Support for the amendment can be found in at least paragraph [0069] of the application as originally filed. No new matter has been added.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 2, 5, 6, and 8-33 are rejected under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent No. 6,633,839 to Kushner et al. (“Kushner”) in view of U.S. Patent No. 6,581,032 to Gao et al. (“Gao”). Applicants have amended claims 1, 2, 5, 6, 26, and 27 to overcome this rejection.

Independent claim 1 teaches a subscriber unit comprising a feature extraction module configured to extract a plurality of features of a speech signal, the plurality of features comprising speech frames extracted from the speech signal and being used for voice recognition; a voice activity detection module configured to detect voice activity within the speech signal and to provide an indication of detected voice activity; and a wireless transmitter coupled to the feature extraction module and the voice activity detection module and configured to transmit the indication of detected voice activity and the plurality of features over a wireless network to a voice recognition device in a distributed voice recognition system, wherein the indication of detected voice activity is transmitted at least one frame earlier than the plurality of features. Independent claims 2, 5, 6, and 26 recite similar but not identical features.

Kushner teaches a speech recognition system including a first communication device and a second communication device. The first communication device receives speech input, encodes data representative of the speech input, and transmits the encoded data to the second communication device. The encoded data includes spectral data and energy data. The second communication device compares the encoded data to a known data set and reconstructs the speech input from the spectral data and the energy data (Kushner, Abstract).

Gao teaches a speech compression system that encodes a speech signal into a bit stream for subsequent decoding. The system optimizes the bandwidth consumed by the bits stream by balancing the desired average bit rate with the perceptual quality of the reconstructed speech. The speech compression system comprises a variety of codecs of increasing bit rate that may be activated based on aspects of the speech signal (Gao, Abstract).

Applicants respectfully submit that neither Kushner nor Gao, alone or in combination, teach or suggest that the plurality of features extracted from a speech signal comprise speech frames, as taught by claim 1 as amended.

Kushner teaches that the extracted features include spectral data and energy data (Kushner, column 4, line 5 - column 5, line 13). Applicants respectfully submit that the spectral data and energy data are generated from the speech signal, but are not themselves the speech signal or speech frames from the speech signal. There is simply no mention of features comprising speech frames extracted from a speech signal anywhere in Kushner.

Moreover, Applicants respectfully submit that Kushner teaches away from features comprising speech frames extracted from a speech signal. Kushner teaches that the speech signal can be recreated at the second computing device by processing the energy data and the spectral data (Kushner, column 8, line 59 - column 9, line 51). If the features of Kushner included the speech frames extracted from the speech signal, there would be no need to recreate the speech signal from spectral data or energy data because the speech frames would have been included in the extracted features that were transmitted to the second computer (e.g., voice recognition device).

Gao similarly fails to teach or suggest such features. Gao fails to describe extracting any features, let alone features that include speech frames.

Because Kushner and Gao, alone or in combination, fail to teach or suggest each and every feature of claim 1, they cannot be used to render claim 1 obvious. Applicants therefore respectfully request that the Examiner withdraw the rejection and allow claim 1.

Independent claims 2, 5, 6, and 26 recite similar, but not identical, features as claim 1, and are therefore allowable for at least the reasons given above for claim 1. Applicants therefore respectfully request that the Examiner withdraw the rejections and allow claims 2, 5, 6, and 26.

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Claims 8-25 and 27-33 are variously dependent on independent claims 1, 2, 5, and 26, and are therefore allowable for at least the reasons given above for claims 1, 2, 5, and 26. Applicants therefore respectfully request that the Examiner withdraw the rejections and allow claims 8-25 and 27-33.

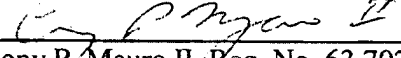
CONCLUSION

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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